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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

Petition for Exemption from the Federal Motor

Vehicle Motor Theft Prevention Standard;

Toyota

AGENCY: National Highway Traffic Safety Administration,
DEPARTMENT OF TRANSPORTATION (DOT).

ACTION: Grant of petition for exemption.

SUMMARY: This document grants in full Toyota Motor North America, Inc.'s (Toyota) petition for an exemption of the RAV4 vehicle line in accordance with 49 CFR Part 543, Exemption from the Theft Prevention Standard. This petition is granted because the agency has determined that the antitheft device to be placed on the line as standard equipment is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard (49 CFR Part 541).

DATES: The exemption granted by this notice is effective beginning with the 2014 model year (MY).

FOR FURTHER INFORMATION CONTACT: Ms. Carlita Ballard, Office of International Policy, Fuel Economy and Consumer Standards, NHTSA, W43-439, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Ms. Ballard's phone number is (202) 366-5222. Her fax number is (202) 493-2990.

SUPPLEMENTARY INFORMATION: In a petition dated October 16, 2012, Toyota requested an exemption from the parts-marking requirements of the theft prevention standard (49 CFR Part 541) for the RAV4 vehicle line beginning with MY 2014. The petition requested an exemption from parts-marking pursuant to 49 CFR 543, Exemption from Vehicle Theft Prevention Standard, based on the installation of an antitheft device as standard equipment for the entire vehicle line.

Under §543.5(a), a manufacturer may petition NHTSA to grant an exemption for one vehicle line per model year. In its petition, Toyota provided a detailed description and diagram of the identity, design, and location of the components of the antitheft device for the RAV4 vehicle line. Toyota stated that the MY 2014 RAV4 vehicle line will offer two entry systems but both will have an engine immobilizer device as standard equipment. Specifically, Toyota stated that the RAV4 vehicle line will offer a “smart key” system (keyless entry and push button start) and a “conventional key” entry system. Key components of the “smart key” system will include an engine immobilizer, certification electronic control unit (ECU), engine switch, steering lock ECU, security indicator, door control receiver, electrical key and an electronic control module (ECM). The conventional key components consist of a transponder key ECU assembly, transponder key coil, security indicator, ignition key and an ECM. Toyota will not offer an audible and visual alarm for the RAV4 vehicle line. Toyota’s submission is considered a complete petition as required by 49 CFR 543.7 in that it meets the general requirements contained in 543.5 and the specific content requirements of 543.6.

On the RAV4 vehicle line, the “smart key” system allows the driver to press the “ON” button located on the instrument panel to start the vehicle. Once the driver pushes the “ON” button, the certification ECU verifies the electrical key, and the certification ECU and steering lock ECU receive confirmation of the valid key, allowing the ECM to start the engine. With the conventional key system, once the key is inserted into the key cylinder, the transponder chip in the key sends the key ID codes to the transponder key ECU assembly to verify the code. Once the code is verified, the immobilizer will allow the ECM to start the engine.

Toyota stated that with the smart key system, the immobilizer is activated when the power button is pushed from the “ON” status to any other ignition status and the certification ECU performs the calculation of the immobilizer then the immobilizer signals the ECM. For the “conventional key” system, activation of the immobilizer occurs when the ignition key is turned from the “ON” status to any other position and/or the key is removed. Toyota also stated that the devices’ security indicator will provide the immobilizer status for the RAV4 vehicle line. When the immobilizer is activated, the indicator flashes continuously. When the immobilizer is not activated, the indicator is turned off. The device is deactivated when the doors are unlocked and the device recognizes the key code from the smart key system. Deactivation of the conventional key system occurs when the doors are unlocked and the key is turned to the “ON” position.

Toyota also stated that there will be position switches installed in the vehicle to protect the hood and doors. Specifically, the position switches in the hood will trigger the antitheft device when they sense inappropriate opening of the hood. The position switches in the doors will trigger the antitheft device when they sense opening of the doors is being attempted without the use of a key, wireless switch or smart entry system.

In addressing the specific content requirements of 543.6, Toyota provided information on the reliability and durability of its proposed device. To ensure reliability and durability of the device, Toyota conducted tests based on its own specified standards. Toyota provided a detailed list of the tests conducted (i.e., high and low temperature, strength, impact, vibration, electro-magnetic interference, etc.). Toyota stated that it believes that its device is reliable and durable because it complied with its own specific design standards and that the device is installed in other vehicle lines for which the agency has granted a parts-marking exemption. As an additional measure of reliability and durability, Toyota stated that its vehicle key cylinders are covered with casting cases to prevent the key cylinder from easily being broken. Toyota further stated that there are so many key cylinder combinations and key plates for its gutter keys that it would be very difficult to unlock the doors without using a valid key.

To provide comparison, Toyota referenced NHTSA-published theft rate data for the RAV4 vehicle line for several years before and after it was equipped with a standard antitheft device with an immobilizer. Toyota stated that the average theft rate for the RAV4 for MY 2009 is 0.66 thefts per thousand vehicles produced as compared to 0.86 per 1,000 vehicles, the average theft rate for the RAV 4 for model years (MYs) 2005-2008. Toyota further stated that the antitheft device which is already installed as standard equipment beginning with MY 2009 RAV4 will continue to be installed on the MY 2014 RAV4 vehicle line. Toyota also compared its proposed device with other devices NHTSA has determined to be as effective in reducing and deterring motor vehicle theft as would compliance with the parts-marking requirements (i.e., Toyota Prius and Prius v, Toyota Camry and Corolla, Lexus LS and GS vehicle lines). The

Toyota Camry, Corolla, Lexus LS and GS vehicle lines have all been granted parts-marking exemptions by the agency. The theft rates for the Toyota Camry, Corolla, Lexus LS, GS and Prius vehicle lines using an average of three model years' data (2008-2010) are 1.8107, 1.7399, 0.9468, 0.4915 and 0.3756 respectively. Therefore, Toyota has concluded that the antitheft device proposed for its RAV4 vehicle line is no less effective than those devices in the lines for which NHTSA has already granted full exemption from the parts-marking requirements. Toyota believes that installing the immobilizer as standard equipment reduces the theft rate and expects the RAV4 to experience comparable effectiveness, ultimately being more effective than parts-marking labels.

Based on the evidence submitted by Toyota, the agency believes that the antitheft device for the RAV4 vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard (49 CFR 541).

Pursuant to 49 U.S.C. 33106 and 49 CFR 543.7 (b), the agency grants a petition for exemption from the parts-marking requirements of Part 541, either in whole or in part, if it determines that, based upon substantial evidence, the standard equipment antitheft device is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of Part 541. The agency finds that Toyota has provided adequate reasons for its belief that the antitheft device for the Toyota RAV4 vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard (49 CFR Part 541). This conclusion is based on the information Toyota provided about its device.

The agency concludes that the device will provide four of the five types of performance listed in §543.6(a)(3): promoting activation; preventing defeat or circumvention of the device by unauthorized persons; preventing operation of the vehicle by unauthorized entrants; and ensuring the reliability and durability of the device.

For the foregoing reasons, the agency hereby grants in full Toyota's petition for exemption for the Toyota RAV4 vehicle line from the parts-marking requirements of 49 CFR Part 541. The agency notes that 49 CFR Part 541, Appendix A-1, identifies those lines that are exempted from the Theft Prevention Standard for a given model year. 49 CFR Part 543.7(f) contains publication requirements incident to the disposition of all Part 543 petitions. Advanced listing, including the release of future product nameplates, the beginning model year for which the petition is granted and a general description of the antitheft device is necessary in order to notify law enforcement agencies of new vehicle lines exempted from the parts marking requirements of the Theft Prevention Standard.

If Toyota decides not to use the exemption for this line, it must formally notify the agency. If such a decision is made, the line must be fully marked according to the requirements under 49 CFR Parts 541.5 and 541.6 (marking of major component parts and replacement parts).

NHTSA notes that if Toyota wishes in the future to modify the device on which this exemption is based, the company may have to submit a petition to modify the exemption. Part 543.7(d) states that a Part 543 exemption applies only to vehicles that belong to a line exempted under this part and equipped with the antitheft device on which the line's exemption is based. Further, Part 543.9(c)(2) provides for the submission of petitions "to modify an exemption to permit the use of an antitheft device similar to but differing from the one specified in that

exemption.”

The agency wishes to minimize the administrative burden that Part 543.9(c)(2) could place on exempted vehicle manufacturers and itself. The agency did not intend in drafting Part 543 to require the submission of a modification petition for every change to the components or design of an antitheft device. The significance of many such changes could be *de minimis*. Therefore, NHTSA suggests that if the manufacturer contemplates making any changes, the effects of which might be characterized as *de minimis*, it should consult the agency before preparing and submitting a petition to modify.

Issued on: January 9, 2013

Christopher J. Bonanti
Associate Administrator for
Rulemaking

Authority: 49 U.S.C. 33106; delegation of authority at 49 CFR 1.50.

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